BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF DELAWARE

IN THE MATTER OF THE APPLICATION OF)
DELMARVA POWER & LIGHT COMPANY FOR) PSC DOCKET NO. 13-115
AN INCREASE IN ELECTRIC BASE RATES)
AND MISCELLANEOUS TARIFF CHANGES)
(FILED MARCH 22, 2013))

DIRECT TESTIMONY OF
STEPHANIE L. VAVRO
ON BEHALF OF
COMMISSION STAFF

AUGUST 16, 2013

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

My name is Stephanie L. Vavro. I am the Principal of Silverpoint Consulting LLC ("Silverpoint"). My business address is 1519 Whispering Woods Circle, Allentown, Pennsylvania 18106.

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE IN THE PUBLIC UTILITY FIELD?

A. I received a Bachelor's degree in Mathematics, magna cum laude, in 1981 and a
Master's degree in Management Science in 1984, both from Lehigh University.

Since 2009, my firm has completed projects on behalf of state regulatory commissions in areas that include distribution system reliability, mergers, and performance measurement. For example, Silverpoint worked on behalf of the Maryland Public Service Commission in the 2011 investigation of Potomac Electric Power Company (Pepco) reliability and service quality.

Before forming Silverpoint, I was a senior consultant with The Liberty Consulting Group for nearly ten years, where I worked on numerous utility reviews, typically focusing on quantitative analysis in areas such as capital spending, cost allocation, and performance incentive plans. Prior to that time, I was an energy analyst with Dickstein Shapiro, a Washington, D.C. law firm, where I focused on electric industry restructuring and other energy issues, often supporting efforts such as litigation and regulatory proceedings. My professional background also includes market analysis and strategic planning positions at large industrial and natural

1		resource companies including Westmoreland Coal Company and Bethlehem
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4	Q.	HAVE YOU PREVIOUSLY PRESENTED TESTIMONY IN PUBLIC
5		UTILITY RATE PROCEEDINGS?
6	A.	No.
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8	I	I. TESTIMONY PURPOSE AND SUMMARY OF CONCLUSIONS
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10	Q.	ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?
11	A.	My appearance in this proceeding is on behalf of the Public Service Commission
12		Staff ("Commission Staff").
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14	Q.	PLEASE SUMMARIZE THE PURPOSE OF YOUR TESTIMONY IN THIS
15		PROCEEDING.
16	A.	Silverpoint was asked to assist the Staff of the Delaware Public Service
17		Commission ("Delaware Commission") in analyzing the reliability-related capital
18		projects associated with Delmarva Power & Light Company's ("Delmarva" or
19		"the Company") application for a rate increase. Specifically, we were asked to
20		consider the necessity of these investments to comply with the service quality
21		standard included in Regulation Docket No. 50, i.e., a maximum System Average
22		Interruption Duration Index ("SAIDI") of 295 minutes.
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24		Silverpoint has also been asked to provide context and perspective regarding the
25		Company's Reliability Enhancement Plan ("REP"), the Pepco Holdings, Inc.
26		(PHI) corporate strategic initiative designed to, as its name implies, enhance and
27		improve reliability at PHI's distribution companies.

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Q. PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS.

- A. My findings and conclusions, which I will discuss in more detail in the remainder 3 of this testimony, are as follows: 4
- There was no engineering necessity for Delmarva's REP reliability-related capital 5 projects in 2011 and 2012 in order to meet minimum Regulation Docket No. 50 6 standards, or to maintain SAIDI at recent levels. 7
- Delmarva Delaware's distribution plant additions in 2011 and 2012 were \$51.6 8 million and \$76.6 million, respectively. Of this \$128.2 million total, \$38.1 9 million, or approximately 30%, is associated with Delmarva's REP initiative. 10 Reliability-related plant additions in 2011 and 2012 totaled \$101.4 million, of 11 12 which nearly 35% was associated with REP projects.
 - The size of Delmarva's five year budget for reliability-related projects under its REP initiative, \$170 million, is quite significant.
 - From a policy perspective, there is no clear mandate to support spending for corporate reliability enhancement programs in Delaware as there is in other states.
 - Stakeholders have not determined if increased capital spending to improve reliability is warranted or should be paid for by Delaware ratepayers, and as such the Company's request for recovery of REP reliability-related investments is premature.
 - It appears that a significant portion of the Company's REP reliability-related plant additions is already included in 2012 year-end rate base.
- At least \$8.6 million of the Company's Construction Work in Progress (CWIP) request is associated with REP projects, as is approximately \$36 million of the Company's proposed Adjustment 26. 25

Q. HOW IS THE BALANCE OF YOUR TESTIMONY ORGANIZED?

A. In Section III, I offer some background and perspective on the Delmarva Delaware Reliability Enhancement Plan to provide the appropriate context for my later discussion. In Section IV, I discuss Delmarva's reliability-related capital projects, and in Section V, I discuss rate making treatment of REP reliability-related projects.

III. DELMARVA RELIABILITY ENHANCEMENT PLAN

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Q. WHAT IS THE ORIGIN OF THE RELIABILITY ENHANCEMENT PLAN, OR REP?

Although PHI now refers to the REP as a strategic corporate initiative, it did not start out that way. Reliability improvement plans were first offered up by Pepco in 2010 in response to ever-increasing pressure from regulators in Maryland and the District of Columbia ("DC") about the utility's on-going reliability problems and poor response to storms. By July of that year, Pepco customers had experienced several extremely long outages due to storms, including those associated with "Snowmaggedon," and public sentiment towards the company was decidedly negative.

After receiving numerous customer complaints, on August 12, 2010 the Maryland Public Service Commission ("Maryland Commission") opened a new docket, Case No. 9240, to investigate the reliability of Pepco's electric distribution system and its quality of service. Pepco unveiled its REP for Montgomery County at a press conference two weeks later on August 27th, the same day it filed the plan in

¹ In 2004, Pepco's reliability in Maryland had deteriorated significantly, and the company had up to that point made little progress in reversing the trend.

the Maryland Commission's new docket; a week later, Pepco filed another plan for its Prince George's County service area. By the end of September, Pepco had also filed a separate REP with the District of Columbia Public Service Commission ("DC Commission").² All three plans were quite similar in design, describing the actions the company intended to take to significantly improve service quality under six reliability programs — enhanced vegetation management, priority feeders, load growth, distribution automation, underground residential distribution (URD) replacement, selective cable and undergrounding/substation improvements.³ Each REP was, however, tailored to the individual service territory, and reflected different specific projects and spending levels under each of the six programs.

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These original REPs were Pepco's attempt to convince regulators, government officials, and the public that it was serious about improving its reliability as evidenced by the magnitude of the company's promised investment — \$256 million in Maryland and \$318 million in DC over five years.

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Q. DID YOU HAVE AN OPPORTUNITY TO REVIEW PEPCO'S RELIABILITY ENHANCEMENT PLANS AT THAT TIME?

20 A. Yes. In late 2010, Silverpoint and its partner, First Quartile Consulting, were selected by the Maryland Commission to conduct, as part of Case No. 9240, an investigation into Pepco's reliability and service quality, including its performance during storm-related outages. The scope of that investigation included a review of Pepco's reliability-related capital budgeting and spending, and an assessment of the adequacy of the Maryland REPs.

² By this time, the DC Commission's investigative docket on Pepco reliability had been open for more than a decade.

The majority of proposed REP spending, except for enhanced vegetation management, was capital.

The team found that, in the five years leading up to the REP, Pepco Maryland had managed to fund non-discretionary capital projects on its distribution system, but relatively few of what could be considered discretionary ones. Non-discretionary distribution projects, as defined by Pepco, were those needed to maintain reliability, such as required load or customer-driven projects, or to replace aging infrastructure. As such, Pepco's pre-REP capital spending was adequate to maintain reliability at existing levels, but not to substantially improve it.

The projects in each of the six REP reliability programs were specifically designed to enhance reliability. Our main criticism of the REPs at the time was that they had been assembled very quickly without the benefit of detailed analysis. We also noted that all of the reliability-related programs, except for enhanced vegetation management, would likely have little effect on reducing the duration of outages during major events, but were instead aimed more at improving everyday reliability as measured by, for example, SAIDI exclusive of Major Event Days (MEDs).

Q. ARE THE PROJECTS IN DELMARVA'S REP SIMILARLY DESIGNED TO IMPROVE RATHER THAN MAINTAIN RELIABILITY AT EXISTING LEVELS?

Yes. The Company recently reiterated this interpretation of REP capital investment, describing the REP as a way to combine the efforts into one program the commitment that the Company is making to continuously improve its reliability performance.⁴ This distinction between REP capital investments made to enhance reliability and "non-REP" capital investments made to maintain reliability at existing levels is an important one that I will return to later in my testimony.

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Q. WHEN DID THE REP BECOME A CORPORATE STRATEGY?

Within a few months of the release of the Pepco REPs, PHI decided to extend the six reliability-related programs across its entire footprint as a corporate strategic initiative. The writing on the wall was quite clear by late 2010 that PHI would soon need to make significant, measurable reliability improvements across Maryland. The state legislature was expected to pass the Maryland Electric Service Quality and Reliability Act (commonly referred to at the time as the "Pepco bill"), requiring regulators to implement specific reliability standards. By January 2011, the Maryland Commission had opened a rulemaking session and issued draft proposed standards. PHI understood that the new Maryland standards would mandate improvements at Delmarva as well as Pepco. By July 2011, the DC Commission had also implemented new, aggressive standards for System Average Interruption Frequency Index (SAIFI) and SAIDI. Extending the REP programs to cover all of PHI's DC and Maryland utility operations at the time in light of the anticipated new mandates certainly made sense.

Q. WAS THERE CAUSE TO EXTEND THE REP CORPORATE INITIATIVE TO DELMARVA DELAWARE?

⁴ Response to PSC-REL-8.

No. Under the standards in Regulation Docket No. 50 originally put in place in 2006, Delmarva Delaware is required to maintain a SAIDI of 295 minutes or less. Those standards have not changed. That fact is evident in PHI's 2012 internal performance report. The company devotes a separate section of the report to discussing its progress in meeting new jurisdictional reliability standards for SAIDI and SAIFI. Individual graphs for Pepco Maryland, Delmarva Maryland, and Pepco DC plot actual 2011 and 2012 performance against newly-mandated SAIFI and SAIDI requirements for 2012 through 2015 in Maryland and for 2013 through 2016 in DC. Graphs for Atlantic City Electric compare actual performance to the company's "proposed" New Jersey requirements. Delmarva Delaware is conspicuously absent from the discussion.

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Despite the fact that, from a policy perspective, there was no clear mandate to necessitate spending for reliability enhancement programs in Delaware, the Company nonetheless opted to pursue the goal of considerably reducing its SAIDI.⁶ That decision comes with a considerable price tag. Delmarva Delaware has spent nearly \$35 million in plant additions for REP reliability-related projects in 2011 and 2012, and plans to spend another \$170 million over the next five years.⁷ This \$170 million figure is, by the way, remarkably close to the \$174 million that Delmarva expects to spend on REP reliability-related plant additions in Maryland over the next five years.⁸

⁵ The December 2012 Performance Metrics and Report, provided as Attachment E to the response to AG-REL-19, pages 11-13.

⁶ Delmarva's projected SAIDI and SAIFI through 2016 under its Delaware REP are shown in the response to PSC-CP-2

⁷ Responses to AG-REL-2 and AG-REL-3. REP feeder load relief is not included in the total.

⁸ Response to PSC-REL-7. REP feeder load relief is not included in the total.

IV. DELMARVA RELIABILITY-RELATED CAPITAL PROJECTS

Q. PLEASE SUMMARZE DELMARVA'S DELAWARE DISTRIBUTION PLANT ADDITIONS.

A. The Company's distribution plant additions for the years 2007 through 2012 are summarized in the following chart. Although the focus in this rate case is on 2011 and 2012 additions, I have included years 2007 through 2010 for informational purposes.

Delmarva Delaware Distribution Plant Capital Additions

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\$ Millions	2007	2008	2009	2010	2011	2012
Non-REP						
Customer-driven	\$23.3	\$18.2	\$11.2	\$14.3	\$9.6	\$12.6
Load	1.4	4.7	13.4	6.4	0.5	0.5
Reliability	15.7	23.6	25.9	29.0	29.9	37.0
Total Non-REP	\$40.5	\$46.5	\$50.4	\$49.7	\$40.0	\$50.1
REP						
Reliability					\$10.3	\$24.2
Load Relief					1.3	2.3
Total REP					11.6	26.5
Total Plant Additions	\$40.5	\$46.5	\$50.4	\$49.7	\$51.6	\$76.6
Total Reliability-related Plant Additions	\$15.7	\$23.6	\$25.9	\$29.0	\$40.2	\$61.2

Source: Response to AG-REL-3, Attachments A and B.

Delmarva Delaware's total distribution plant additions in 2011 and 2012 were \$51.6 million and \$76.6 million, respectively. Of this \$128.2 million total, \$38.1 million, or approximately 30%, is associated with Delmarva's REP initiative. Reliability-related additions in 2011 and 2012 totaled \$101.4 million, of which nearly 35% was associated with the REP.

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Customer-driven projects are those required by customers, such as new connections and street lights, or by government agencies, such as relocating plant for highway construction projects. Load projects are designed to maintain load-transfer and system continuity, such as installing new feeders or adding substation capacity. Reliability-related projects are designed to either maintain (non-REP) or enhance (REP) distribution system reliability. Replacing a duct bank at a Christiana substation is an example of a 2012 non-REP reliability-related project. Distribution automation work at Christiana substations is an example of an REP project.

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During discovery, the Company provided documents that list all of the individual projects that make up each category of REP and non-REP plant additions. The short description provided for each project gave us a general sense of the nature of the work performed.

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Q. PLEASE CLARIFY THE DISTINCTION BETWEEN REP AND NON-PLANT ADDITIONS.

A. As I noted earlier, there is a definite distinction between REP and non-REP 19 projects. Non-REP projects are those completed in order to maintain reliability.⁹ 20 The Company designates capital projects aimed at improving its reliability 21 performance as REP projects. The categories of reliability-related capital projects 22 in Delmarva's REP are priority feeders, URD cable upgrades, distribution 23 automation, feeder reliability improvements, conversions, and substation 24 reliability improvements. 10 As a general matter, the type of work performed in an 25 REP project would not otherwise be performed as a non-REP project in a future 26

⁹ All capital additions in 2007 to 2010, before the REP initiative began, are considered non-REP projects.

year. 11 Although these projects enhance system performance, they are not required to maintain the status quo.

Q. WHAT WAS THE PURPOSE OF YOUR REVIEW?

A. Silverpoint was asked by Commission Staff to examine REP and non-REP reliability-related capital projects for the years 2011 and 2012, which are most relevant to the Company's current rate base request. We were asked to consider whether the level of spending was reasonable, and whether the investments were necessary to comply with the service quality standards included in Regulation Docket No. 50, *i.e.*, a maximum SAIDI of 295 minutes.

Q. DID YOU CONSIDER THE NECESSITY OF THE COMPANY'S SPENDING FOR REP LOAD RELIEF PROJECTS?

A. Not at this time. As shown in the above chart, the Company's non-REP spending for load projects dropped off starting in 2011. It appears that Delmarva moved most of its traditional load work, specifically primary feeder load relief, under the REP umbrella. We do not have enough information about these projects to determine if they were truly meant to enhance versus maintain reliability. I expect that the Company will be able to clarify that point. In the meantime, we have limited the discussion of REP projects to those that the Company has specifically designated as reliability-related. We take no position at this time about the necessity of REP load relief projects, but reserve the right to do so at a later time.

Q. WHAT DID YOU CONCLUDE ABOUT THE COMPANY'S NON-REP RELIABILTY-RELATED PLANT ADDITIONS FOR THE YEARS 2011 AND 2012?

¹⁰ The categories of reliability programs have changed slightly from the original Pepco REPs.

The levels of capital additions for 2011 and 2012 were reasonably consistent with those of recent prior years, recognizing that some variability in yearly spending is normal due to the inherent lumpiness of capital projects. We examined the Company's descriptions of the non-REP reliability projects for the last six years and found the nature of 2011 and 2012 project work to be consistent with that of prior years.

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The following chart shows the Company's reliability-related spending compared to its SAIDI performance.

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Delmarva Delaware Reliability-related Plant Additions and SAIDI Performance

	Non-REP (\$ millions)	REP (\$ millions)	SAIDI (minutes)
2007	15.7		197
2008	23.6		213
2009	25.9		190
2010	29.0		199
2011	29.9	\$11.6	192
2012	37.0	26.5	146

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Until recently, the Company has maintained SAIDI in the range of 190 to 200 minutes, which is comfortably below the 295 minute maximum. The amount and type of non-REP project work in 2011 and 2012 are consistent with maintaining the system at status quo. We saw no evidence to suggest that these projects were not a necessary part of maintaining the reliability of the system at recent SAIDI levels, and presume these projects will be afforded traditional rate base treatment.

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Q. WHAT DID YOU CONCLUDE ABOUT THE COMPANY'S REP RELIABILITY-RELATED PROJECT SPENDING IN 2011 AND 2012?

¹¹ Response to PSC-REL-10.

A. Quite simply, we saw no engineering necessity for the REP reliability-related capital projects to maintain SAIDI at its status quo level.

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Q. HAS THE REP RELIABILITY-RELATED SPENDING HAD A POSITIVE EFFECT ON DELMARVA'S SAIDI?

As the chart above illustrates, there has been a noticeable improvement in SAIDI performance since the REP reliability-related initiatives began. To be clear, we are not challenging the Company's selection of projects in its REP, or questioning whether those projects might have a positive effect. We recognize that PHI has seen positive improvement in other jurisdictions with similar increased REP spending. Our concern in this proceeding is that spending for such improvement comes without a clear mandate, which raises the question of whether those improvements should be paid for by ratepayers.

Keep in mind that the SAIDI exclusive of MEDs measure reflects everyday reliability, since the effects of major events are excluded. Reliability during blue sky days or minor events, which is roughly what SAIFI and SAIDI numbers represent, is quite different from reliability in significant storm-type events. The Company's REP investment is aimed at the former. To many customers, reliability means that when outages happen, they do not last for very long. Customer complaints often have more to do with a utility's ability to restore service promptly after a major event, and reducing the length of such outages is more of a system resiliency issue. There have been no Commission or government-sponsored studies, and right now we do not have sufficient information to opine as to whether Delaware ratepayers would be willing to pay for improvements in system reliability (or for system resiliency), and if so, to what extent.

Q. IS THE CURRENT SAIDI STANDARD OF 295 MINUTES APPROPRIATE?

We have not been asked to consider that question in this docket, although we note that the appropriateness of that SAIDI standard in Delaware is scheduled to be part of a subsequent Commission investigation examining the overall issue of infrastructure investments and reliability investments in particular. Under the current standards, a SAIDI of 295 is an absolute maximum value above which point penalties may be imposed. No one actually expects the Company to operate at that level. The Delaware standards recognize that each utility must exercise its professional judgment in satisfying the standard based on its system and service territory. Delmarva was, until sometime in 2011, apparently comfortable operating its system to maintain SAIDI in the 200 range, which is well below the maximum.

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V. RATE MAKING TREATMENT OF REP RELIABILITY-RELATED PROJECTS

Q. THE COMPANY PROPOSES TO RECOVER ITS REP-RELATED INVESTMENT IN RATE BASE. IS THAT APPROPRIATE?

A. By seeking rate base treatment for its REP expenditures now, the Company is essentially putting the cart before the horse. Given that the Company has no new performance standards to meet, there is little context or framework within which the parties in this proceeding can consider these investments. At this juncture, all we can likely agree upon is that the investments were made to further a corporate strategy.

¹² Order No. 8363 in PSC Docket No. 13-152.

This lack of context for REP capital expenditures was the primary impetus behind the creation of Docket 13-152 to investigate Delmarva's proposed distribution infrastructure and reliability investments on a going forward basis. The size of those proposed investments is very significant. As summarized in the following chart, the Company plans to spend \$170 million in REP reliability-related initiatives over the next five years. In fact, over the five-year period, the Company plans to invest more capital in enhancing its reliability than in maintaining it.

REP and Non-REP Reliability-Related Capital Budget

\$ Millions	REP Budget	Non-REP Budget
2013	\$32.3	\$41.1
2014	30.7	31.6
2015	34.4	28.8
2016	35.4	28.9
2017	37.4	26.0
Total	\$170.2	\$156.4

Source: REP figures AG-GEN-1 Attachment D (excludes load relief)
Non-REP figures from AG-REL-2 Attachment

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Q. CAN AN APPROPRIATE FRAMEWORK BE DEVELOPED IN TIME TO FAIRLY EVALUATE THE REP INVESTMENTS IN THIS RATE CASE?

Possibly, depending on the progress that is made in Docket 13-152. The issues involved are by no means simple, and Delaware ratepayers have yet to weigh in on the debate. By way of perspective, keep in mind that in Maryland there have been several years of discussions among stakeholders about reliability issues, and that conversation is still on-going. PHI was recently required to file a report with the Maryland Commission regarding plans to accelerate short-term reliability

improvements along with a cost benefit analysis for each proposed measure. PHI has done no such analysis for Delmarva Delaware. 13

Q. HOW MUCH OF DELMARVA'S 2011 AND 2012 REP-RELATED PLANT ADDITIONS ARE IN RATE BASE?

A. I have not been able to determine that from the material thus far provided, even though Staff has asked the Company on several occasions to provide this specific information. However, notwithstanding the lack of detail provided by the Company on this issue, it appears that a significant portion is already included in 2012 year-end rate base.

From a policy perspective, the fact that the Company has included a portion of the REP projects in rate base does not mean they cannot or should not be challenged. The Company has announced its intention to file annual rate cases. There should be a clear signal that recovery will not be automatic, especially given the magnitude of the planned spending.

HOW MUCH REP SPENDING IS INCLUDED IN THE COMPANY'S CWIP AND ADJUSTMENT 26 FIGURES?

A. I understand that Mr. Peterson will present in his testimony Commission Staff's position regarding the Company's proposed inclusion of CWIP and Adjustment 26 in rate base. We did, however, determine that \$36.2 million of the proposed Adjustment 26 net plant in service amount and \$8.6 million of the \$169.4 million in CWIP projects listed on Schedule No 2-F of the Company's Application are associated with REP projects.

¹³ Response to PSC-REL-29.

1 Q. DOES THIS COMPLETE YOUR TESTIMONY AT THIS TIME?

2 A. Yes, it does.